

We claim:

- 1 1. An apparatus comprising:
 - 2 a rigid structural panel having an outside edge and a
 - 3 plurality of holdown attachment points on the outside edge of
 - 4 the structural panel;
 - 5 a plurality of foundation bolts for embedding in a
 - 6 foundation or slab or stem wall and
 - 7 a foundation bolt placement template for defining a
 - 8 mounting location for the structural panel, and locating and
 - 9 supporting the foundation bolts during fabrication of the
 - 10 foundation or slab or stem wall; and
 - 11 means for attaching the structural panel holdown
 - 12 attachment points to the foundation bolts for transferring
 - 13 the lateral forces applied to the structural panel to the
 - 14 foundation or slab or stem wall.

- 1 2. The apparatus of claim 1 wherein the means for securing
 - 2 the structural panel to the foundation bolts further
 - 3 comprises:
 - 4 a plurality of holdowns for transferring the shear
 - 5 forces developed in the structural frame to the foundation
 - 6 bolts, each holdown attached to at least one holdown
 - 7 attachment point, each holdown securing the structural panel
 - 8 to a foundation bolt.

- 1 3. The apparatus of claim 1 wherein the structural panel
 - 2 further comprises:
 - 3 a rigid, generally rectangular structural frame having
 - 4 two coplanar vertical side members connected by two or more
 - 5 coplanar horizontal members forming a generally rectangular

6 opening therebetween, each vertical side member having an
7 inside surface and an outside surface;
8 a plurality of holdown attachment points on each
9 vertical side member; and
10 one or more lateral force resisting members connected to
11 the structural frame to resist lateral forces applied to the
12 structural frame.

1 4. The apparatus of claim 3 wherein the one or more lateral
2 force resisting members comprise:

3 one or more horizontal spacing members coplanar to and
4 connecting the vertical side members subdividing the
5 generally rectangular opening forming two or more
6 subopenings; and

7 one or more generally rectangular panels connecting each
8 vertical side member at a vertical joint, the panel covering
9 the two or more subopenings.

1 5. The apparatus of claim 3 wherein the one or more lateral
2 force resisting members is metal.

1 6. The apparatus of claim 3 wherein the one or more lateral
2 force resisting members comprise:

3 a plurality of generally rectangular coplanar panels
4 attached to and connecting adjacent vertical members at a
5 vertical joint, each panel covering a horizontally adjacent,
6 generally rectangular opening.

1 7. The apparatus of claim 6 wherein the plurality of panels
2 are attached to the vertical members using a plurality of
3 fasteners securing each panel to each vertical member.

1 8. The apparatus of claim 4 wherein the one or more
2 generally rectangular panels further comprise a plurality of
3 load points.

1 9. The apparatus of claim 8 wherein the plurality of load
2 points are arranged in a pattern.

1 10. The apparatus of claim 9 wherein the pattern of load
2 points includes one or more linear patterns.

1 11. The apparatus of claim 9 wherein the pattern of load
2 points includes two or more parallel linear patterns.

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